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DEPARTMENT OF ENVIRONMENTAL QUALITY
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Salt Lake City, Utah 84114-4870

June 4, 1992

CERTIFIED MAIL, RETURN RECEIPT REQUESTED

Mr. Dave Hodson, Manager
Barney's Canyon Mine
P.O. Box 311
Bingham Canyon, UT 84006-0311

RE: Comments on Barney's Canyon Draft
Ground Water Discharge Permit
No. UGW350001

Dear Mr. Ramsey:

We have received your comments on the draft permit dated March 25, 1992, following the 30- day comment period. Your comments appear to be directed at the following four main topics or issues:

1. The key issue is centered on what constitutes a point of compliance. Secondary issues include determination of out of compliance status, and the determination of what constitutes compliance, leak detection technology, performance standards and best available technology (BAT). A resolution of the key issue should help resolve most of the subordinate issues.
2. Daily monitoring of process ponds. Barney's Canyon is only monitoring process ponds on a weekly basis. The permit requires monitoring to be daily leak detection inspections.
3. Use of mine pit water for dust suppression. The Statement of Basis states mine pit water may be used for dust suppression, but this item is not in the permit.
4. Verification of neutralization vs. fencing. Wording is not clear as to the intent of fencing. As stated in the permit, reclamation would not start after neutralization of the pad.

In reference to Item 1, again as conveyed previously and as reflected in the permit, we recognize that leak detection systems are not compliance monitoring points used to assess compliance with the ground water quality standards. However, UAC R317-6-6.4C (previously UAC R448) states that the Executive Secretary may issue a ground water discharge permit for an existing facility provided the monitoring plan, sampling and reporting requirements are adequate to determine compliance with applicable requirements. The applicant must utilize treatment and discharge minimization technology commensurate with plant process design capability, and similar or equivalent to that utilized by facilities that produce similar

Mr. Dave Hodson, Manager

Page 2

June 4, 1992

products and services with similar production process technology. Also, UAC R317-6-6.9 states the distance to compliance monitoring points must be as close as practical to the points of discharge. Considering the language and the intent of the regulations, it is the opinion of the Utah Attorney General's office, that the use of leak detection systems for compliance monitoring is appropriate for assessing treatment technology performance. It can also be argued that this requires a leak detection system without reference to the requirement for a compliance monitoring point. In this regard, a precedence has already been set as the Division has issued and is considering issuing permits for heap leach facilities where leak detection systems are or will be used to monitor for compliance with permit terms. At these other facilities, depth to water and expense would make it impractical for these facilities to install an adequate number of wells for direct monitoring of the saturated zone.

We were informed on April 6, 1992 that solution was found in the leak detection system of pad BC-2. After an investigation by Barney's Canyon the problem was found, repairs made, and the flow in the leak detection stopped.

Because Barney's Canyon is a very large operation on the edge of the ground water recharge area for a large metropolitan area, and because ground water is only at moderate depth, and because of previous leaks in the detection system, the Executive Secretary believes it prudent that both monitoring wells and the leak detection system be considered in assessing compliance. As stated in our February 21, 1992 letter, we are still maintaining that leakage in the detection system will place the system into noncompliance. Failure to maintain BAT is a violation of the regulations. Immediate action on the part of Barney's Canyon will then be required. Noncompliance does not necessarily mean there will be immediate shutdown or fines, and in most cases, immediate reporting and corrective action should suffice. We generally do not consider BAT system failures adequate cause for fines, unless negligence, willful intent or no action to minimize the damage on behalf of the permittee is involved. In this regard we have added Bypass and acts of God clauses to your permit, in Parts IV F and G.

In summary, it is appropriate as well as practical that compliance monitoring be sufficiently adjustable to protect groundwater quality, and to fit the situation, without undue cost and inconvenience to the operation. In this respect both early warning detection systems and well monitoring systems qualify as compliance mechanisms.

Because of the leaks reported April 6, 1992, we believe that additional monitoring wells will be needed downgradient of Pad BC-2. The four test borings the company made indicated the clay liner was saturated and the leak may have existed for a long time period before fluid showed up in the leak detection pipe. The construction of new wells will be covered under an addition to the permit Reopener Provisions in Part IV. N. The resolution of this issue will be addressed in subsequent correspondence from the office.

In reference to Item 2, we maintain that the process ponds should be monitored daily for several reasons. Your ponds have only one FML liner that is now several years old. Other facilities with a similar design have developed problems and have found it expedient to upgrade and enlarge their ponds when the FML began to degrade.

In reference to Item 3, we have added to the permit that the mine pit water may be used for dust suppression, as stated in the Statement of Basis.

Mr. Dave Hodson, Manager
Page 3
June 4, 1992

In reference to Item 4, we will alter the wording as you suggest, as the intent is the same and is an improvement in wording. Reclamation must start soon after neutralization.

We hope that we have satisfied your comments and concerns to the extent possible. Therefore, we have enclosed a copy of the executed final permit. Please note the effective date as certain permit compliance conditions are triggered by this date. In accordance with the provisions of UAC R317-6-6.21, any appeal to conditions of this permit must be submitted within thirty days of receipt of this letter. The issuance fee for this permit is \$7,200. Please remit this amount to the Division at your earliest convenience.

Should you have any additional questions, feel free to contact Mack Croft or Larry Mize at 538-6146.

Sincerely,

Utah Water Quality Board



Don A. Ostler, P.E.
Executive Secretary

DAO:MGC:rkn:dee

Enclosure

cc: Attorney General's Office
Salt Lake County Health Department
✓ Division of Oil, Gas and Mining

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FILE: